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Salix nebrodensis (Salicaceae), a new species from Sicily

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Abstract

Salix nebrodensis, a new species distributed along the mountain streams of North-East Sicily, is described and illustrated. Its ecological requirements, conservation status and taxonomic relationships with *S. apennina* and *S. tyrrhenica* are also examined.

Key words: endemics**,** Mediterranean flora, new species, Salicaceae, *Salix*, Sicily, taxonomy, willows

Introduction

Salix Linnaeus (1753: 1015) is a large genus with a sub-cosmopolitan distribution, mainly occurring in the Northern Hemisphere (Argus 1997). It is represented by 330–350 (Skvortsov 1999), up to about 500 species (Argus 1997, 2010, Fang 1987, Maassoumi 2009), depending on the authors opinion. The highest species diversity is recorded for China (ca. 270 species) which, in agreement with Fang (1987), can be considered the centre of origin and differentiation of willows. A fairly good number of species (ca. 120) is also found in the former Soviet Union (Skvortsov 1999) and 113 species in Northern America (Argus 2010). As concerns Europe, the hitherto known species of *Salix* are about 65 (Argus 1997). Both hybridization and introgression played an important role in the evolution and speciation processes in the genus. As a consequence, high variability, among and within the known populations, has been detected, especially for those willows occurring in the Boreal territories with a temperate climate (Fang 1987). This is also testified by a noteworthy taxonomical complexity at specific level, as well as by conflicting opinions regarding the infrageneric classification.

Previous taxonomical investigations on the genus *Salix* of the Tyrrhenian territories (central Mediterranean) allowed to describe several new species, endemic to Sicily, Sardinia and southern Italy (Brullo & Spampinato 1988, 1993, Brullo 1993, Brullo *et al.* 1995, 2001a, 2001b, Peruzzi *et al.* 2014). In the framework of floristic and taxonomic investigations carried out in Sicily, a very peculiar willow, found along the streams localized in the Nebrodi range (North-East Sicily), is here examined. These plants show close morphological relationships with *Salix apennina* Skvortsov (1965: 90) and *S. tyrrhenica* Brullo *et al.* (2001b: 46), both species distributed across the Italian peninsula. Several relevant diacritic features allow us to distinguish very well these Sicilian plants from the related species. Therefore, it is described as a new species.

Material and methods

The morphological study on the new species was carried out on living plants and collected herbarium material deposited in CAT (15 specimens; herbarium acronyms follow Thiers 2015), coming from various localities and corresponding to the examined material listed below as holotype, isotypes and paratypes. The morphological comparison with the related species was made by using herbarium material preserved in CAT for *Salix tyrrhenica* [15 specimens from 2 localities:—ITALY. Calabria: Aspromonte Torrente Mancusi, Favazzina, 23 March 1995, *S. Brullo, F. Scelsi & G. Spampinato s.n.* (CAT!); Aspromonte Torrente Mancusi, Favazzina, 8 June 1996, *S. Brullo, F. Scelsi & G. Spampinato s.n.* (CAT!);

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